



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/337,278	06/22/1999	TAISUKE HIROOKA	990659	8796

23850 7590 06/06/2002

ARMSTRONG, WESTERMAN & HATTORI, LLP
1725 K STREET, NW.
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

SMETANA, JIRI F

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 06/06/2002

16

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-14

Advisory Action

Application No.

09/337,278

Applicant(s)

HIROOKA ET AL.

Examiner

Jiri F. Smetana

Art Unit

1746

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 May 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
 ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
 2. ☐ The proposed amendment(s) will not be entered because:
 (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ they raise the issue of new matter (see Note below);
 (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
 4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
 6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
 7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1,3,5 and 7-10.

Claim(s) withdrawn from consideration: 11-19.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
 9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
 10. ☒ Other: see attachment

ADVISORY ACTION - ATTACHMENT

Response to Amendment

1. Applicant's arguments filed 20 May 2002 have been fully considered but they are not persuasive.

The declaration under 37 CFR 1.132 filed 20 May 2002 is insufficient to overcome the rejection of claims 1, 3, 5, and 7-10 based upon 35 U.S.C. 103(a) as set forth in the last Office action because the prior art clearly teaches overlapping resistivity ranges of cleaning water. Where the unexpected properties of a claimed invention are not shown to have a significance equal to or greater than the expected properties, the evidence of unexpected properties may not be sufficient to rebut the evidence of obviousness. *In re Nolan*, 553 F.2d 1261, 1267, 193 USPQ 641, 645 (CCPA 1977). As recited below, a pure cleaning water with a resistivity range of less than 5 M Ω to clean electronic equipment has been widely known in the prior art.

As explained in the previous Office action, paper No. 14, since the prior art of Miyashita teaches a "resistivity of *about* 5 M Ω to 18M Ω " (emphasis added) (column 1, lines 22-23), such range of "*about* 5 M Ω to 18M Ω " allows for lower resistivities, thus the ranges overlap. *In re Geisler*, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997). Further, a prima facie case of obviousness exists where the claimed range and prior art range do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America V. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Applicant argues that the reference of Takehiko et al., JP 04-206724, would not have motivated one of ordinary skill in the art to have modified the primary references. However,

Art Unit: 1746

Takehiko clearly recites that adjusting the resistivity value of the pure cleaning water with carbon dioxide in the range of 0.1-3.0 MΩ prevents electrification of a wafer during cleaning *and* prevents foreign matter from attaching to the wafer (abstract). Takehiko discloses a pure cleaning water resistivity value well within the resistivity range of Applicant's invention.

Applicant argues that Simmons et al., U.S. Patent No. 5,693,148, only teach a method for cleaning contaminants from the sponge member and does not suggest the features of the sponge member being separated from the object to be cleaned during cleaning. However, Simmons meets the limitations of Applicant's claim. Claim 3 only requires that the sponge member is separated from the object to be cleaned during cleaning and the water is supplied also to the separated sponge member. Simmons clearly discloses this limitation (column 3, lines 10-19; column 4, lines 3-6).

Applicant argues that Chung et al., U.S. Patent No. 5,336,371, would not have motivated one of ordinary skill in the art to have modified the primary references. However, Chung clearly teaches that after a photolithography process and stripping of the photoresist, the photoresist stripper must be removed from the wafer by a process such as rinsing before further wafer processing (column 1, lines 23-25; column 3, lines 50-52).

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiri F. Smetana whose telephone number is (703)605-1173. The examiner can normally be reached on Monday-Friday (7:30am-4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (703)608-4333. The fax phone numbers for


Art Unit: 1746

the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Jiri F. Smetana
Patent Examiner
Art Unit 1746

jfs
June 3, 2002

A handwritten signature in black ink, appearing to read "Randy Gulakowski".

RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700